

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning at page 6, line 7 with the following paragraph:

--Fig. 4 shows Figs. 4A-C show an individual panel loudspeaker for a flat panel loudspeaker arrangement according to the invention,--

Please replace the paragraph beginning at page 6, line 9 with the following paragraph:

--Fig. 5 shows Figs. 5A1-A2, B1-B2, C1-C2, and D1-D2 show different spacer profiles for a panel loudspeaker for a flat panel loudspeaker arrangement according to the invention,--

Please replace the paragraph beginning at page 7, line 10 with the following paragraph:

--Fig. 4A shows a top view 10 and Fig. 4B a perspective view 11 of a wall radiator element (similar to a "tile") without revealing details. An enlarged, more detailed perspective view 12 of the wall radiator element in Fig. 4C also shows a multi-resonance sound panel 13 and support devices 14 (spacer profile). The multi-resonance sound panel has low damping and is self-supported (for example, by a support device 14 formed as support feet and located at the corners of the multi-resonance sound panel 13). The multi-resonance sound panel 13 is made of a hard, almost brittle material which provides overall the highest possible bending stiffness at the lowest possible mass coverage. In the exemplary embodiment, expanded foam panels (with or without cover layers) or honeycomb sandwich panels are used. When honeycomb sandwich panels with a rear cover layer 15, a core 16 and a front cover layer 17 are used, the cover layer material should have the highest possible dilatational wave velocity, whereas the core material should have the lowest possible average density in combination with the highest possible average shear module. The illustrated arrangement together with the drivers 18, which can

be mounted on or inserted in the rear surface of the multi-resonance sound panel 13, represents a complete multi-resonance loudspeaker.--

Please replace the paragraph beginning at page 7, line 26 with the following paragraph:

--The stability of the solid mounting surfaces (for example, a building wall in an interior space of a building) and the uniform environmental condition in the room make it feasible to fabricate the multi-resonance panel loudspeaker inexpensively by a simple process. For example, the cover layers can be made of paper and the sandwich core of expanded foam with open pores. The spacer profile 14 disposed between the self-supporting multi-resonance sound panel 13 and a wall, which is not shown in detail in Fig. 4, performs an important function with the multi-resonance panel loudspeaker. The spacer element is used to support the free-standing multi-resonance sound panel 13 having a sandwich construction and should be able to withstand the static shear force caused by the weight of the panel without impeding oscillations of the multi-resonance panel 13 in a direction normal to the wall surface. The spacer profile 14 can be implemented in many ways to perform the desired function. Figs. 5a-4 Figs. 5A1-A2, B1-B2, C1-C2, and D1-D2 depict several preferred embodiments.--

Please replace the paragraph beginning at page 8, line 10 with the following paragraph:

--In the embodiment illustrated in Fig. 5aFigs. 5A1-A2, the spacers are in form of solid or soft-elastic supports attached at free locations of the multi-resonance sound panel 13. The underside of the spacers is adapted for attachment parallel to the wall surface. This arrangement creates a shallow cavity behind the arrayed "tile layer" of multi-resonance sound panels. The cavity is open at the common edge and has its own low-frequency resonances.--

Please replace the paragraph beginning at page 8, line 15 with the following paragraph:

--In the embodiment of Fig. 5b~~Figs. 5B1-B2~~, the spacer profile 14 is a soft foam panel 19, which has openings for structures , for example the drivers 18, that may protrude from the rear side from the multi-resonance sound panel 13. The pad 19 is glued to the multi-resonance sound panel 13, with the side of the pad facing away from the sound panel adapted for attachment to a mounting wall (not shown). This arrangement creates a shallow cavity behind the arrayed "tile layer" of multi-resonance sound panels. The cavity is open at the common edge and has its own low-frequency resonances.--

Please replace the paragraph beginning at page 8, line 22 with the following paragraph:

--The embodiment depicted in Fig. 5e~~Figs. 5C1-C2~~ shows a "box"-like structure. A circumferential bead 20 along the edge is provided to not only support the multi-resonance sound panel 13, but to also create a closed resonance cavity when the wall radiator elements is attached to a wall (not shown in Fig. 5e~~Figs. 5C1-C2~~). The cavity is formed independent of the presence of additional wall radiator elements.--

Please replace the paragraph beginning at page 8, line 27 with the following paragraph:

--The embodiment of Fig. 5d~~Figs. 5D1-D2~~ is similar to the embodiment of Fig. 5e~~Figs. 5C1-C2~~, but includes in addition a base reflex tube 21 located on one side of the circumferential edge bead 20. The circumferential edge bead 20 not only supports the multi-resonance sound panel 13, but also creates a closed resonance cavity when the wall radiator element is attached to a wall, with the cavity being vented through an acoustically effective opening. At low frequencies, each of the multi-resonance sound panels operates like a piston loudspeaker, i.e., all surface areas are moving with the same phase. Under these conditions, an enclosed air volume that is not vented would significantly increase the restoring force and consequently also the impedance, thereby inhibiting the radiated

acoustic power at low frequencies. Instead of a base reflex tube, a suitability formed horn or a transmission line can be used as a vent. A lateral vent opening, however, should only be considered when the number of wall radiator elements is small.--